

CLAIM AMENDMENTS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method comprising the steps of:
receiving a first data stream of multimedia data;
selecting a first protocol from a plurality of available protocols;
processing a first packet of the first data stream based on the first test protocol to determine a first processed result; [[and]]
in response to determining the first processed result matches an expected result, parsing a second packet of the first data stream based on the first protocol;
generating a database based on parsing the second packet, the database comprising first information indicating a first property associated with the first data stream and second information different from the first indicating a second property associated with the first data stream, the second property different from the first.
2. (Currently Amended) The method as in Claim 1, wherein the first protocol is selected from the group consisting of ~~comprising~~ Motion Picture Experts Group 2 (MPEG-2), DIRECTV®, and Digital Versatile Disk (DVD) protocols.
3. (Previously Presented) The method as in Claim 1, further comprising:
storing a second portion of the first data stream in memory after the step of selecting the first protocol.
4. (Previously Presented) The method as in Claim 3, wherein the second portion of the first data stream is received after the first portion of the first data stream.
5. (Previously Presented) The method as in Claim 3, wherein the second portion of the first data stream includes the first portion of the first data stream.

6. (Cancelled)

7. (Currently Amended) The method as in Claim 1, wherein ~~parsing the second packet comprises determining a first set of descriptors associated with the first data stream~~the first information comprises information indicating a network associated with the first data stream.

8. (Currently Amended) The method as in Claim 7, wherein the ~~first set of descriptors includes a descriptor selected from the group consisting of a network identifier, second~~information indicates multiplex information, and program information associated with the first data stream.

9. (Original) The method as in Claim 8, wherein multiplex information includes transport stream identifiers and program identifiers.

10. (Currently Amended) The method as in Claim [[8]]1, wherein ~~the the first~~information indicates program information associated with the first data stream, the program information selected from the group consisting of: includes program numbers, program recovery clock identifiers, video data identifiers and audio data identifiers.

11. (Currently Amended) The method as in Claim [[8]]1, wherein ~~the set of descriptors further includes~~first information comprises elementary stream information and closed captioning information associated with the first data stream.

12. (Original) The method as in Claim 11, wherein the elementary stream information includes data stream types and elementary stream identifiers.

13. (Currently Amended) The method as in Claim [[3]]1, wherein the ~~memory includes a frame buffer~~first information comprises close captioning information.

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

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41. (Cancelled)

42. (Cancelled)

43. (Cancelled)

44. (Cancelled)

45. (Cancelled)

46. (Currently Amended) A device comprising,

a transport stream demultiplexor comprising:

an input configured to receive ~~multimedia data~~ data first data stream, wherein the ~~multimedia data~~ first data stream includes a first protocol and further wherein the first protocol is unknown;

a microcode engine configured to:

select a first protocol from a plurality of available protocols;

process a first packet of the first data stream based on the first test protocol to determine a first processed result; [[and]]

in response to determining the first processed result matches an expected result, parse a second packet of the first data stream based on the first protocol; and

a memory configured to store a database based on parsing the second packet, the database comprising first information indicating a first property associated with the first data stream and second information different from the first indicating a second property associated with the first data stream, the second property different from the first.

47. (Currently Amended) The device of claim 46, wherein the ~~device further comprises~~ the memory is configured to store a second portion of the first data stream after the microcode engine determines the first protocol.

48. (Previously Presented) The device of Claim 47, wherein the second portion of the first data stream is received at the input after the first portion of the first data stream.

49. (Previously Presented) The device of Claim 47, wherein the second portion of the first data stream includes the first portion of the first data stream.

50. (Previously Presented) The device of Claim 47, wherein the device further comprises a stream engine coupled to an output of the transport stream demultiplexor, the stream engine configured to generate a database based on the second portion of the first data stream.

51. (Currently Amended) The device of Claim 50, wherein the stream engine is further configured to parse the second portion of the first data stream to determine a first set of descriptors associated with the first data stream and store the first set of descriptors in the first database.

52. (Previously Presented) The device of Claim 51, wherein the first set of descriptors includes a descriptor selected from the group consisting of a network identifier, multiplex information, and program information.

53. (Previously Presented) The device of Claim 52, wherein multiplex information includes transport stream identifiers and program identifiers.

54. (Previously Presented) The device of Claim 52, wherein the program information includes program numbers, program recovery clock identifiers, video data identifiers and audio data identifiers.

55. (Previously Presented) The device of Claim 52, wherein the set of descriptors further includes elementary stream information and closed captioning information.

56. (Previously Presented) The device of Claim 55, wherein the elementary stream information includes data stream types and elementary stream identifiers.

57. (Previously Presented) The device of Claim 47, wherein the memory includes a frame buffer.

58. (Cancelled)

59. (Currently Amended) The method of claim 1, further comprising:
in response to determining the first processed result does not match the expected result:
 selecting a second protocol from the plurality of available protocols;
 processing the first packet based on the second test protocol to determine a second
 processed result; and
in response to determining the second processed result matches an expected
result, parsing a second packet of the first data stream based on the ~~first~~
second protocol.

60. (Previously Presented) The method of claim 1, wherein selecting the first protocol comprises selecting a first start code from a plurality of available start codes, the first start code indicative of a type of multimedia stream.

61. (Previously Presented) The method of claim 1, wherein selecting the first protocol comprises selecting a first set of physical interface parameters from a plurality of available interface parameters.

62. (Previously Presented) The method of claim 1, wherein selecting the first protocol comprises selecting a first packet length from a plurality of available packet lengths.

63. (Currently Amended) The device of claim 46, wherein the microcode engine is configured to:

in response to determining the first processed result does not match the expected result:

select a second protocol from the plurality of available protocols;

process the first packet based on the second test protocol to determine a second processed result; and

in response to determining the second processed result matches an expected result, parse a second packet of the first data stream based on the ~~first~~ second protocol.

64. (Previously Presented) The device of claim 46, wherein the microcode engine is configured to select the first protocol by selecting a first start code from a plurality of available start codes, the first start code indicative of a type of multimedia stream.

65. (Previously Presented) The device of claim 46, wherein the microcode engine is configured to select the first protocol by selecting a first set of physical interface parameters from a plurality of available interface parameters.

66. (Previously Presented) The device of claim 46, wherein the microcode engine is configured to select the first protocol by selecting a first packet length from a plurality of available packet lengths.

67. (New) A method, comprising:
receiving a first data stream of multimedia data;
selecting a first protocol from a plurality of available protocols;
processing a first packet of the first data stream based on the first test protocol to determine a first processed result;
storing a first set of descriptors based on processing the first packet in a first database, a first descriptor of the first set of descriptors identifying a first property of the first data stream and a second descriptor of the first set of descriptors identifying a second property of the data stream; and
in response to determining the first processed result matches an expected result, parsing a second packet of the first data stream based on the first protocol.

68. (New) The method as in Claim 67, wherein the first set of descriptors includes a descriptor selected from the group consisting of a network identifier, multiplex information, and program information.

69. (New) The method as in Claim 68, wherein multiplex information includes transport stream identifiers and program identifiers.

70. (New) The method as in Claim 68, wherein the program information includes program numbers, program recovery clock identifiers, video data identifiers and audio data identifiers.

71. (New) The method as in Claim 68, wherein the set of descriptors further includes elementary stream information and closed captioning information.